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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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WORKMAN NYDEGGER/MICROSOFT
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UT 84111

EXAMINER	
DAO, THUY CHAN	
ART UNIT	**PAPER NUMBER**
2192	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/677,129	REISSMAN ET AL.	
	Examiner	Art Unit	
	Thuy Dao	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *36-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *36-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 September 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on May 21, 2007 has been entered.

2. Claims 36-46 have been examined.

Response to Amendments

3. Per Applicants' request, claim 36 has been amended.

Response to Arguments

4. The Applicants are thanked for a thorough reply. Applicants' arguments have been considered but are moot in view of the new ground(s) of rejection.

Drawings

5. The drawings are objected to because of minor informalities. The examiner respectfully requests the Applicant submit a vertically aligned FIG. 2.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top

margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In the instant application, the abstract has more than 150 words.

Appropriate correction is required.

Claim Objection

7. Claim 46 is objected to because the specification fails to provide proper antecedent basis for the claimed subject matter (i.e., "physical computer readable medium", emphasis added). See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

Furthermore, as defined in the specification, page 10: 23 – page 11: 11, a computer readable medium may include "*communication media*", "*modulated data signal*", and "*carrier wave*", which do not fall within one of the four statutory classes of Section 101.

To provide proper antecedent basis for the claimed subject matter and to obviate a 35 USC §101 rejection, correction of the following is required: - -A [[physical]] storage computer readable medium ...- - as disclosed in the specification, page 10: 10-22.

Claim Rejections – 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 36-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avvari '074 (art of record, US Patent No. 7,165,074) in view of US Patent Publication No. 2005/0028143 A1 to Aridor et al. (art made of record, hereinafter "Aridor").

Claim 36:

Avvari '074 discloses a physical computer readable medium and *a method of tracking differences between software builds of a software product* (e.g., col.3: 4-34), *the method comprising:*

scanning a first binary software build of a software product to automatically discover classes in the first binary software build (e.g., FIG. 2, blocks 104-114-118, col.7: 14-28, a first binary software build as the Profiled Java Executable 104);

discovering dependencies of the discovered classes (e.g., col.7: 18-21, discovering dependencies to form a call tree as Coverage Data 118);

storing a first dictionary data structure including the discovered classes with their corresponding discovered dependencies (e.g., FIG. 2, blocks 118-116-102, col.7: 18-28, storing Coverage Data 118 in Database 102)*;*

comparing the first dictionary data structure with a second dictionary data structure, the second dictionary data structure including classes organized with their dependencies of a second binary software build of the software product by comparing classes and dependencies set forth in the first and second dictionary data structures (e.g., col.5: 3-16, comparing an updated call tree with a corresponding existing call tree; FIG. 11, col.12: 49-62; col.7: 29-55, Data Analyzer 112a comparing with a second dictionary data structure from modification to the source code 103 to produce Dependency Test List 111a)*; and*

providing an indication of differences between the first and second binary software builds (e.g., FIG. 2, col.&; 42-60, from Dependency Test List 111a, Data Optimizer 112b generates Precision Test List 111b and Output 115 to indicate negative effects from said modification to the source code 103).

Avvari '074 does not explicitly disclose *generating a listing of code, from intermediate code, that produced the differences between the first and second binary software builds.*

However, in an analogous art, Aridor further discloses *generating a listing of code, from intermediate code, that produced the differences between the first and second binary software builds* (e.g., [0036]; [0045-0046]; FIG. 3, [0061]; [0074]; and [0080]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Aridor's teaching into Avvari's teaching. One would have been motivated to do so to facilitate the adaptation of later releases of the standard code base and represent the difference data as semantic changes made in the modified version as suggested by Aridor (e.g., [0017], [0019-0021]).

Claim 37:

The rejection of claim 36 is incorporated. Avvari also discloses *discovering classes comprises: (a) loading configuration information for the first binary software build; (b) identifying a class of the first software build; (c) creating an instance of the identified class; and (d) repeating acts (b) and (c) for other classes in the first binary software build* (e.g., FIG. 7A, col.11: 8-67).

Claim 38:

The rejection of claim 37 is incorporated. Avvari also discloses *loading configuration information for the first binary software build comprises loading default configuration information* (e.g., col.8: 66 – col.9: 21).

Claim 39:

The rejection of claim 37 is incorporated. Avvari also discloses *loading configuration information for the first binary software build comprises loading additional configuration information* (e.g., col.8: 29-38).

Claim 40:

The rejection of claim 37 is incorporated. Avvari also discloses *creating an instance of the identified class comprises checking to see if a factory is defined for the class* (e.g., FIG. 7B-C, col.11: 8-67).

Claim 41:

The rejection of claim 36 is incorporated. Avvari also discloses *discovering dependencies of the discovered classes comprises exploring the class to determine if there are any constructors, properties, attributes or methods for the class* (e.g., FIG. 7A, col.11: 8-67).

Claim 42:

The rejection of claim 41 is incorporated. Avvari also discloses *if there are any constructors, properties, attributes or methods for the class, storing the constructors, properties, attributes or methods for the class in a temporary structure in preparation for storing in the first dictionary data structure* (e.g., FIG. 2, col.7: 14-60).

Claim 43:

The rejection of claim 36 is incorporated. Avvari also discloses *providing an indication of differences between the first and second binary software builds comprises providing a delta which indicates entries that have been added or deleted between the first dictionary data structure and the second dictionary data structure* (e.g., FIG. 10, col.12: 15-29).

Claim 44:

The rejection of claim 36 is incorporated. Avvari also discloses *displaying a tree representation of the dictionary data structure that can be used to determine if any classes have been modified* (e.g., FIG. 7A-C, col.11; 8-67).

Claim 45:

The rejection of claim 36 is incorporated. Avvari also discloses *receiving user input for loading constructors to specific classes for increasing code coverage testing for changes between the first software build and the second software build* (e.g., FIG. 10, col.12: 15-29).

Claim 46:

Claim 46 is a storage computer readable medium, which recites the same limitations as those of claim 36, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 46.

10. Claims 36 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avvari '401 (art of record, US Patent No. 6,978,401) in view of Aridor.

Claim 36:

Avvari '401 discloses a physical computer readable medium and *a method of tracking differences between software builds of a software product* (e.g., FIG. 2, col.7: 1-42), *the method comprising:*

scanning a first binary software build of a software product to automatically discover classes in the first binary software build (e.g., FIG.12A, blocks 1202-1204, col.13: 5-13);

discovering dependencies of the discovered classes (e.g., FIG. 12A, block 1206, col.13: 13-15);

storing a first dictionary data structure including the discovered classes with their corresponding discovered dependencies (e.g., FIG. 12A, block 1208, col.13: 15-18);

comparing the first dictionary data structure with a second dictionary data structure, the second dictionary data structure including classes organized with their dependencies of a second binary software build of the software product by comparing classes and dependencies set forth in the first and second dictionary data structures (e.g., FIG. 12A, block 1210, col.13: 18-21); *and*

providing an indication of differences between the first and second binary software builds (e.g., FIG. 12A, block 1212 → YES/NO, col.13: 22-64).

Avvari '401 does not explicitly disclose *generating a listing of code, from intermediate code, that produced the differences between the first and second binary software builds.*

However, in an analogous art, Aridor further discloses *generating a listing of code, from intermediate code, that produced the differences between the first and second binary software builds* (e.g., [0036]; [0045-0046]; FIG. 3, [0061]; [0074]; and [0080]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Aridor's teaching into Avvari's teaching. One would have been motivated to do so to facilitate the adaptation of later releases of the standard code base and represent the difference data as semantic changes made in the modified version as suggested by Aridor (e.g., [0017], [0019-0021]).

Claim 46:

Claim 46 is a storage computer readable medium, which recites the same limitations as those of claim 36, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 46.

Conclusion

11. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone is (571) 272 8570. The examiner can normally be reached on Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T. Dao

TUAN DAM
SUPERVISORY PATENT EXAMINER